

## Abstract

An arc tube that effectively prevents a metal halide from being deposited in a light emitting tube portion, causing the change of a light emitting color or the generation of lighting failures in an arc tube.

An axial distance L1 from a neck portion 20C of an arc tube body formed between a light emitting tube portion 20A and a pinch seal portion 24B of the arc tube body to a step-down plane portion 20Ba2 of each pinch seal surface 20Ba in a pinch seal portion 20B is set to 1 mm or less. During pinch seal, consequently, a sufficient pinching pressure is applied to a electrode 26, such as a tungsten electrode up to a portion close to a tip portion thereof. Thus, it is possible to reduce the volume of an almost wedge-shaped slit 24a formed around the tungsten electrode 26 on an end in the axial direction of a discharge space 24, thereby decreasing the amount of a metal halide deposited on the slit 24a.

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